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ABSTRACT

Described is the Subregional Workshop on Training of Teachers for Environmental Education, which took place in Prague and Hluboka, Czechoslovakia, October 13-17, 1980. Participants discussed needs in preservice and inservice teacher education, examined model programs, and visited several environmental education sites. Included in this report are the workshop's 10 conclusions and 13 recommendations regarding teacher training in environmental education at European institutions. Two Czechoslovakian environmental education program models are appended. (WB)

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SUBREGIONAL WORKSHOP ON TEACHER TRAINING FOR ENVIRONMENTAL EDUCATION

Prague – Hluboká, ČSSR, 13 – 17 October, 1980

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European Information Centre of Charles University for Further Education of Teachers, Prague, ČSSR

Subregional Workshop on Training of Teachers for Environmental Education

Prague - Hluboká, ČSSR, 13 - 17 October 1980

FINAL REPORT

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"The Workshop was organized with the cooperation of Unesco-UNEP International Programme in Environmental Education"

1. Final Report

A. Background

The Subregional Workshop on the Training of Teachers for Environmental Education took place in Prague and Hluboká, Czechoslovak Socialist Republic, from 13 to 17 October 1980.

The Workshop was organized under a contract between Unesco and the Czechoslovak Commission for Unesco at Charles University in Prague. The organization of the Workshop was the task of the European Information Centre of Charles University for Further Education of Teachers while the scientific assistance was provided mainly by the Pedagogical Research Institute in Prague and the Central Institute for Education of Pedagogical Staff in Prague. All through its preparation the organizers of the Workshop consulted its agenda, programme and principal documents, following conditions of the contract with Unesco.

The meeting constituted an important activity in environmental education within the European region which was a follow-up to the recommendations of the Intergovernmental Conference on Environmental Education /Tbilisi, U.S.S.R, 14 - 26 October, 1977/ and a part of the biennial programme for 1979-1980 approved by the Twentieth General Conference of Unesco.

B. Objectives

The main objective of the Workshop was to exchange experiences on ways and means for incorporating environmental education into pre-service and in-service teacher training programmes for schools of primary and secondary levels.

In this connection, model programmes and/or curricula for the respective teacher training programmes were expected to be discussed at the Workshop.

C. Participants

The Workshop, according to the contract, had to be attended by 10 - 15 experts from Europe, of which 10 experts were to come from outside Czechoslovakia.

The organizers invited experts from countries of the European subregion which share comparable environmental conditions, relating mainly to man's impact upon the respective environment, as well as comparable characteristics of educational systems.

The experts were invited from Austria, Bulgaria, Finland, France, German Democratic Republic, Federal Republic of Germany, Hungary, Italy, Poland, Switzerland, USSR /Byelorussian Soviet Socialist Republic/, Yugoslavia. The respective National Commissions for Unesco nominated the experts with the sole exception of Yugoslavia.

Shortly before the meeting experts suggested by the National Commissions of Switzerland, Italy and Austria were not in a position to attend the Workshop. Additional experts from the USSR and from Federal Republic of Germany were invited and took part in the meeting. In all, the Workshop was therefore attended by 10 experts from: Bulgaria, Finland, France, German Democratic Republic, Federal Republic of Germany, Hungary and Poland. The Czechoslovak delegation was led by Prof. Dr. B. Sýkora, DrSc., Vice-Rector of Charles University and consisted of further three members.

Unesco was represented at the Workshop by Mr. Abdul Ghafoor, Programme Specialist from Environmental Education Section of the Division of Science, Technical and Vocational Education.

D. Planning of the Meeting

The Workshop was planned jointly by the Preparatory Committee, set up in the Czechoslovak Socialist Republic, and its Secretariat at the European Information Centre of Charles University for Further Education of Teachers in Prague, on the one side, and the Division of Science, Technical and Vocational Education of Unesco on the other side.

The members of the Preparatory Committee were:
Prof. Ing. Václav ČÍSAŘ, CSc., First Deputy Minister of Education of the Czech Socialist Republic - Chairman
Prof. Dr. Bohuslav SÝKORA, Dr.Sc., Vice-Rector of Charles

University - Vice-Chairman

Doc. Ing. Jaroslav KOČÍ, CSc., Ministry of Education of the Czech Socialist Republic

Doc. Dr. Vladimír ČÁRA, CSc., Director of Pedagogical Research Institute, Prague

Doc. Dr. Karel TMEJ, CSc., Director of Central Institute for Education of Educational Personnal, Prague

Ing. L. MIČKOVÁ, Secretary of Council for Environment at the Government of the Czech Socialist Republic, Prague

Prof. RNDr. Pavol PLESNÍK, DrSc., Science Faculty, Bratislava

Doc. Dr. Svatopluk PETRÁČEK, CSc., Director of European Information Centre of Charles University for Further Education of Teachers, Prague

Doc. Dr. Ladislav ŠMÍD, CSc., Secretary General of the Czechoslovak Commission for Unesco

Doc. Ing. Jiří TEXLER, CSc., Head of Organizing Committee of the Workshop, at the European Information Centre of Charles University for Further Education of Teachers, Prague.

E. Organization of the Workshop

Chairman: doc.Dr. Svatopluk PETRÁČEK, CSc. /Director of European Information Centre of Charles University for Further Education of Teachers/

Vice-Chairman: A.M.DOROFEJEV /Vice-Rector, State Pedagogical Institute, Witebsk, Byelorussian Soviet Socialist Republic/

Prof.Dr. Reinhold LOB /University Essen, Federal Republic of Germany/

Rapporteurs: Prof.Dr. Imre SZEBÉNYI /Technical University of Budapest, Hungary/

Françoise NOUVION /Mission d'action culturelle en milieu scolaire, Ministère de l'Education, Paris, France/

Coordinator: Doc.Ing.Jiří Texler, CSc. /European Information Centre of Charles University for Further Education of Teachers, Prague/

Secretary General:

Dr. Dana KVASNIČKOVÁ, Pedagogical Research Institute, Prague

Secretariat members:

Dr. Hana PROCHÁZKOVÁ, Head of Documentation and Information Section of the European Information Centre of Charles University for Further Education of Teachers

Ludmila BÉBAROVÁ, Translator

Tamara HEJTMÁNKOVÁ, Secretary

G. Proceedings of the Workshop

The Workshop was opened at Karolinum in Prague on Monday 13 October, 1980 at 9,30 by doc.Dr. S. Petráček, CSc., Director of the European Information Centre of Charles University for Further Education of Teachers.

The proposed agenda of the Workshop was adopted and Workshop bodies and staff elected:

doc.Dr.S.Petráček, CSc. /ČSSR/ - President
prof.A.M. Dorofejev /Byelorussian SSR/ - Vicepresident
prof.Dr. Reinhold Lob /Federal Republic of Germany/ - - Vicepresident
doc. Ing. Jiří Texler, CSc. /ČSSR/ - Coordinator
Dr. Dana Kvasničková /ČSSR/ - Secretary General
prof. Dr. Imre Szebényi /Hungary/ - Rapporteur
Françoise Nouvion /France/ - Rapporteur

The meeting was then addressed by prof. Ing. Václav Císař, CSc., First Deputy Minister of Education of the Czech Socialist Republic, Mr. Abdul Ghafoor, Programme Officer, Representative of Unesco, prof. Dr. B. Sýkora, Dr.Sc., Vice-Rector of Charles University, Mrs Milena Reinišová of the Czechoslovak Commission for Unesco and prof. Dr.M.Kořínek, DrSc., Dean of the Pedagogical Faculty of Charles University.

The meeting heard then the main workshop paper from Prof. Ing. V. Císař, CSc., First Deputy Minister of Education of the Czech Socialist Republic. Mr. Abdul Ghafoor presented afterwards his paper on problems of incorporation of environmental education into teacher training. The morning session was concluded by a speech of Prof. Dr. B. Sýkora, DrSc. on selected problems related to the Workshop agenda.

The afternoon session of Monday, 13 October, 1980 was devoted to an exchange of information on the state of training of teachers for environmental education in the countries of the subregion and of the current problems and tasks. Experts from

individual countries presented their national reports. A discussion was also started on the improvement of the state of training of teachers for environmental education through the exchange of experience and measures adopted by individual countries.

A part of the afternoon session was the showing of selected pictures from Ekofilm, the annual film festival in Ostrava, ČSSR, devoted to films on ecological problems. This film show took place at the Club of Education and Science, which belongs to the respective branch of the Central Council of Czechoslovak Trade Unions. The show was followed by a discussion with representatives of the Club. In the evening a visit was organized for the Workshop participants to the National Gallery.

On Tuesday, 14 October, 1980, a discussion to the topics opened on the preceding day continued during the morning session. In the afternoon the Workshop participants left for South Bohemia and in the evening a cocktail took place at Hluboká castle.

On Wednesday, 15 October, 1980 Czechoslovak experts presented at Hluboká two model programmes for pre-service and in-service training of teachers for environmental education based on extensive research. A discussion was centered on these models and on their applicability into the teacher training practice which was seen as a suitable solution.

In the afternoon of the same day excursions took place to localities in Southern Bohemia linked with specific environmental aspects. One was centered on the Třeboň area which is object of a MAB project /century-old man-made country with extensive water-way systems, fishponds and important conservation and development activities/, while the centre of the other excursion was at Prachatice in a nature reserve attached to a local basic school. The paths of the two excursions met at Český Krumlov, an important Czechoslovak urban historical reservation, and continued to České Budějovice, the capital of South Bohemia, where the Workshop participants were shown the Budvar brewery.

On Thursday, 16 October 1980 the Workshop continued with the discussion to the models and eventual curricula related to the incorporation of environmental education into teacher training.

Afterwards, the participants met with experts on the methodology of environmental education at schools of the first educational level in South Bohemia. This meeting took place at the Aleš gallery at Hluboká castle where the participants then had the possibility to see exhibitions of Czech gothic and of the Flemish art.

In the afternoon the Workshop participants returned from Hluboká to Prague and on the way visited Plástovice /Czech "peasant barec" art/, Castle Zvíkov and Milín where the last battle of the Second World War took place /11-12 May, 1945/.

On Friday, 17 October 1980, again at Karolinum in Prague, the Workshop heard the report of the rapporteurs Prof. I. Szebényi /Hungary/ and Mme F. Nouvion /France/, discussed future tasks in the training of teachers for environmental education and the respective international cooperation and adopted afterwards the final documents of the workshop /Conclusions and Recommendations/ which together with other basic documents are attached to this Final Report. The meeting was concluded by short speeches of the Czechoslovak organizers and of Mr. Abdul Ghafoor, the Unesco representative who expressed his appreciation of the organization and proceedings of the Workshop.

In the afternoon of this last day of the Workshop its participants were received by the Rector of Charles University, Prof. Dr. Zdeněk Češka, CSc. in the historical premises of the University. The meeting took place in a friendly atmosphere. The Rector of Charles University and Mr. A. Ghafoor, the Unesco representative, proposed the toasts and expressed their wishes to continue in the future in this fruitful and useful cooperation which has marked the whole Workshop.

The Working Session of the Subregional Workshop on Teacher Training for Environmental Education was opened by Prof. V. Císař, First Deputy Minister of Education of the Czech Socialist Republic, who first devoted his attention to the postulates which should be observed in the development of teachers training for environmental education. In line with the conclusions of the Tbilisi Inter-Governmental Conference on Environmental Education he emphasised the necessity of the systematic purposeful and

long-term formation of the new ethics of man's relationship to his environment, such as would result in responsible civic and professional attitudes of people to the environment. He pointed to the interaction, dynamics and dialectical development of the relationships between man and his environment, to the complex nature of environmental problems which involve sciences, technical, economic, cultural and socio-political aspects. He clarified the importance of the active and creative approach of people to the protection and allround improvement of the environment and to the decisive role of the teacher in environmental education in the school. He referred to the linkage between environmental care and the struggle for peace, disarmament and understanding among nations and underlined the basic positions of the socialist states on these points. He stressed that environmental education should influence the whole human personality, should not only provide ample information on the environment but should also bear impact on the emotions and volition of each individual.

From these requirements Prof. Císař derived that the training of teachers for environmental education should be developed as a system which will penetrate the entire structure of subject and methodical education of teachers, one which will respect both the aspects of the integrated approach to environmental problems and the aspects of the specificities of the training of teachers for schools of different types and levels. He also devoted attention to the problems of the further /in-service/ education of teachers for environmental education and to the relationships between school and out-of-school education in this field. He thus outlined the basic trends and possibilities of solving the problems discussed at the workshop.

The structure of the workshop was adopted as suggested by the Head of the Czechoslovak Delegation Professor B. Sýkora who outlined the principal problem areas and referred to the basic materials which had been prepared for the discussion. He recommended that in compliance with the annotated programme of the workshop be divided into three units by content and within the time allocated to the discussion:

a/ the exchange of experience on the current state of pre-graduate and in-service education of teachers for environmental education in the individual countries represented;

b/ a discussion on and possible modifications of the presented basic materials and the drafting of joint proposals for securing the pre-graduate and in-service training of teachers for environmental education;

c/ a discussion on the conclusions and recommendations for future international cooperation in this field. In the first part the participants in the workshop heard the communications presented by the representatives of all participating countries who informed the workshop of the situation in pre-graduate and in-service teacher training for environmental education in their respective countries, of research carried out in their countries in this field and on trends of development. They became acquainted with different approaches to securing the comprehensive view of the inter-relations between man and the environment, the involvement of the mass media in the training of educators for environmental education. They informed the participants of their experience with the publication of methodical instructions, with various types of courses for teachers and of the approach to diverse professional, methodical and organizational problems which they had been encountering in teacher training for environmental education. They emphasised the influence of hobby organizations and especially of the active participation of teachers in the solution of environmental problems on the formation of their attitudes towards environmental education. The individual communications showed that the training of teachers for environmental education is an outstanding problem in all countries and that the levels of solution vary significantly.

The exchange of experience in this field therefore represents a singularly important iniative for intensifying and improving this aspect of teacher training, namely in all countries where adequate attention is so far not being devoted to environmental education.

The second part of the workshop had an explicitly working character. In a broad and stimulating discussion the participants exchanged views on the Czechoslovak materials presented by the Pedagogical Research Institute in Prague as the result of a board research programme in the field of environmental education.

The materials contained:

- the basic postulates for the concept and solution of the pre-graduate and in-service training of teachers for environmental education,
- the model of pre-graduate teacher training for environmental education,
- the model of in-service teacher training for environmental education.

All participants expressed their views, suggested certain amendments, modifications and supplements which helped bring closer their approaches and clarified their views on the inter-disciplinary concept of teacher training for environmental education, on relations between school and out-of-school education and on the importance of stimulating teachers´activities in this area. Important materials which were taken up in the discussion were the model curricula of comprehensive subjects orientated to the environmental próblem area which have been practically tried at the colleges of education in Ostrava and in Hradec Králové and the curricula of a special seminar on environmental problems for in-service teacher training presented by the Central Institute for the Education of Educational Personnel in Prague. The discussed basic postulates have been incorporated in the conclusions of the workshop. The modified models of curricula for the pre-graduate and in-service training of teachers for environmental education were recommended for practical application in compliance with the specific conditions prevailing in this area in the individual participating states. The models are published as Annexes to this Final Report. The presented curricula served as examples

of a comprehensive integrated approach to the said problem area. The workshop also included guided excursions related to out-of-school environmental education following up on the activities of the school and the teachers in this area. The participants in the workshop visited the school nature reserve of the basic general educational school in Prachatice /South Bohemia/ where they became acquainted with the practical activities of the pupils in nature conservation and with methods used to disseminate their good experience to other schools.

The participants in the workshop then attended a methodical seminar for elementary school teachers oriented to the exchange of information and experience in environmental education. They heard the views of the teachers on the possibilities of incorporating environmental education into different subjects at elementary school level and in follow-up out-of school nature conservation activities of children of this age group. In the discussion which followed the teachers answered numerous questions put to them by the participants in the workshop. The latter also had the opportunity to look through new textbooks, methodical instructions and teaching aids and educational media comprised in the project of the development of the Czechoslovak educational system in which the aspects of environmental education are explicit. Methodical instructions for the junior elementary school level were distributed to the participants in the workshop as an example of the solution of inter-subject relations.

The excursion and the methodical seminar were good ground for an active and lively discussion on the given problem area. During the final part of the workshop the participants discussed the conclusions and recommendations for the pre-graduate and in-service training of teachers for environmental education as well as questions related to international cooperation in this field. The participants in the workshop emphasised the societal significance of the training

of teachers for environmental education, the indispensable nature of the comprehensive and integrated approach to the whole problem area, the linkage of environmental education with the overall subject /specialist/ and methodical training of the teacher. They recommended that the implementation of the discussed conclusions and recommendations should differ in the pre-graduate and in-service training of teachers for environmental education in the individual countries and that a regional seminar should be held in Czechoslovakia in the year 1985 to evaluate the newly acquired experience and the implementation of the recommendations adopted by the workshop.

The content and working spirit of the workshop contributed to the fulfilment of the set targets and it may be stated that it also became a significant contribution towards advancing the pre-graduate and in-service training of teachers for environmental education and international cooperation in this field.

I. Conclusions

The participants in the Subregional Workshop on Training of Teachers for Environmental Education who met on the eve of the third anniversary of the Inter-Governmental Conference on Environmental Education in Tbilisi /October 1977/ discussed the state of teacher training for environmental education in their respective countries and the prospects of its further development in relation to the Unesco Programme and Budget for this sphere for the years 1979-1980 and 1981-1983.

Proceeding from thebroad exchange of experience with the solution of problems related to the pre-graduate and further education of teachers for environmental education and using the documents for the Subregional Workshop prepared by the organizers, i.e. the European Information Centre of Charles University for Further Education of Teachers in Prague, the Educational Research

Institute in Prague and the Central Institute for Education of Educational Personnel in Prague, the participants in the Workshop have arrived at the following conclusions and recommendations:

Conclusions

1. The further upgrading of the pre-graduate and inservice training of teachers for environmental education belongs among the current problems of global character. The happy life of future generations to a considerable extent depends on the successful solution of these problems. Citizens of all countries as well as educationalists and specialists orientated to the environmental problem area must be involved in such a solution.
2. In the field of environmental education the decisive role is played by the teacher. His positive influence may significantly affect, initiate and stimulate the solution of urgent problems related to the creation and protection of the environment.
3. The questions of the pre-graduate and in-service training of teachers for environmental education are being solved in the countries of the participants in the Subregional Workshop, albeit with diverse intensity and in a differentiated manner as concerns content and methods. Basically they are solved in two forms:
   - within the pre-graduate training of student teachers at institutions of higher education,
   - within the complementary and further education of serving teachers.
4. It appears that the problems related to the pre-graduate and in-service training of teachers for environmental education shall in the future have to be solved more purposefully and on a strictly scientific basis allowing the development of effective strategies in this field and emphasising the indispensability of comprehensive approaches.
5. The current state of knowledge in this field and the evaluation of existing experience indicate that in the pre-graduate and in-service education of teachers for environmental education it will be purposeful to adequately proceed from the following principles:

a/ Environmental education is, next to education for international understanding, cooperation and peace and education relating to human rights and fundamental freedoms and education for disarmament, the most important task of mankind in the current stage of development;

b/ it is an urgent current societal task which has ensued from existing burning environmental problems and from the necessity of establishing a harmony between socio-economic development and the laws of ecology;

c/ represents a significant medium in the solution of environmental problems because it aims at knowing, understanding and assessing the manysided relations between man and his environment and leads to the development of such abilities, interests and attitudes which are indispensable from the point of view of the development of all human society;

d/ it proceeds from the knowledge that current environmental problems involve the society as a whole and can only be resolved using societal means based on aware civic and professional attitudes of all members of society; these approaches formed by environmental education constitute the principal pre-requisites for solving environmental problems;

e/ it must proceed from the comprehensive concept of the problems of the human environment, i.e. it takes into consideration not only thebasic aspects of ecology but also the economic, technical, cultural, aesthetic, socio-political, philosophical and ethical aspects;

f/ it is not a single, short-term action but a continuous and permanent process implemented purposefully, consistently, unobtrusively and sensitively;

g/ it influences all traits of the pupil's personality, i.e. rational, emotional and volitional;

h/ it must influence the basic ethics of the relationship of the teacher to the environment and must stimulate and develop his pedagogical abilities in such a manner as to allow him to stimulate the pupils to take up responsible attitudes to the environment and to effectively influence the forming of the attitudes of children and youth to the environment;

i/ it must comprise a comprehensive system which respects the unity of aims, content, means and conditions of education, such as responds to the societal demands on this education and takes into consideration the inter-relations between teachers and pupils;

j/ it must be dynamic, i.e., must respond to the current problems of the environment, their development and relation to the development of the human society, it must lead to the cognition and comprehension of dialectical contradictions and inter relations between man and his environment;

k/ it must purposefully indicate the possible solutions of environmental problems, the significance of the attitude of individuals and of society to international cooperation;

l/ it is based on the assumption that all teaching subjects may by their specific share contribute to the formation of civic and professional relations between man and the environment;

m/ it must correspond to the specific relations between the individual fields of study and the environmental problem area, special attention shall be devoted to the training of teachers of natural and social sciences and technical subjects which constitute the base for this education,

n/ it must have a close relationship with concrete activities aimed at the protection, creation, development and improvement of the environment; the attitudes of the teacher are influenced by his active participation in the solution of environmental problems,

o/ environmental education requires up-to-date information and therefore it is recommendable that persons who by their decisions and work affect the environment /economists, technicians, etc./ should participate in teacher training for environmental education.

As concerns pre-graduate teacher training for environmental education the following aspects should be taken into consideration:

a/ the basic formal training for environmental education at institutions of higher education shall be compulsory for all student teachers and conditions shall be created for the further optional education of students according to their interests;

b/ training for environmental education in the whole system of education at institutions of higher education shall have an analytical and synthetic character, i.e., on the one hand its basic consideration shall be to penetrate in a coordinated manner the entire structure of specialists and pedagogical education, on the other hand it shall facilitate and deepen the synthesis of knowledge on environmental problems and on the tasks of environmental education; in this manner environmental education shall promote and enhance ecological thinking, feeling and activities;

c/ training for environmental education shall be:
- horizontally coordinated, i.e., it shall take into consideration the interdisciplinary relations and inter-relations between formal and non-formal education,
- vertically coordinated, i.e., it shall follow up on the previous educational level and observe the gradual development of training for environmental education,

d/ training for environmental education at institutions of higher education shall be closely linked with out-of-school education, shall use all available means, respond to regional specificities to the diverse conditions of this education in urban and rural areas, shall respect the specific characteristics, aims and tasks of the individual levels and types of schools and of the out-of-school area of environmental education.

As concerns the inservice training of serving teachers for environmental education:

a/ it must be adequately explained with regard to its significance, aims, content and media to all serving teachers and educators, adequately to the level and type of school at which they teach; all teachers and educational personnel should realize their position in this education,

b/ it must be an integral component of a comprehensive system of in-service training in which the teacher will acquire comprehensive information on man´s relations with the environment and special information on the possibilities and methods of environmental education in the individual general educational and specialized subjects; this system shall respect the experience gained by teachers in educational practice,

c/ it shall arouse the interest of teachers, grasp it, stimulate their initiative, creativity and societal involvement in school and out-of-school work,

d/ it shall enable serving teachers to deepen, in accordance with their interests, their knowledge and skill in environmental education and the overall development of their abilities and the upgrading of their methodical qualification in this field.

6. The participants in the Workshop assessing the following models of teacher training for environmental education

   a/ the model of pre-graduate teacher training for environmental education at institutions training for the teaching profession,

   b/ a model of complementary and in service education of teachers and educational personnel for environmental education arrived at the conclusion that these models may be considered as a certain methodical guideline for developing concrete models for pre-graduate teacher training and in-service training of teachers for environmental education in the interested countries.

7. The participants in the Workshop proceed from the assumption that the assessed framework models will be processed and specified to comply with the specific conditions in the respective country, namely with regard to

   - its regional specificities, i.e. respecting socioeconomic system, the specificities of the environment in the urban and rural areas,
   - the specificities of the education of teachers for different school levels and types of schools,
   - the specificities of the individual teaching subjects.

8. International cooperation in this field has extraordinary importance not only for solving the problem area proper, i.e., the education of the young generation, but also for deepening international cooperation generally.

9. The participants appreciate the great contribution of Unesco towards safeguarding international cooperation in environmental education.

10. The participants in the Workshop thank Unesco for contracting this Subregional Workshop, for the support given to it, appreciate the initiative of the Czechoslovak Commission for Unesco and the Ministry of Education of the Czech Socialist Republic and thank the organizers - European Information Centre of Charles University for Further Education of Teachers in Prague, Research Pedagogical Institute in Prague, Central Institute for Education of Educational Personnel in Prague - for having prepared and organized this event, the participants for their active participation and for the attention which they devoted to the discussions and deliberations of the Workshop.

J. Recommendations

Participants in the Workshop recommend

A/ to the educational bodies of the interested countries of the European region

1. to take adequate and efficient measures for creating conditions for the further development of environmental education; in this connection it is recommended that the models of pregraduate training and in-service training of teachers for environmental education discussed by the Subregional Work - shop be fully utilized and all actions aimed at the solution of these problems;

2. to secure an all-round upgrading of information on environmental education and their effective utilization in the training and inservice education of teachers;

3. to devote special attention to the integration of environmental education in the system of upgrading and inservice

education of teachers; to recommend the implementation of compulsory further education of teachers in the countries where this type of education is carried out on a voluntary basis;

4. to devote special attention to the problems of training educationalists for out-of-school environmental education;

5. to use the film festival EKOFILM organized regularly in Ostrava, Czechoslovakia, within the framework of the pre-graduate training and inservice training of teachers for environmental education.

B/ to Unesco

1. to further enhance international cooperation in the field of environmental education. Priority should be given namely to the solution of the following problems:

   a/ deepening bilateral and multilateral international cooperation and inservice training of teachers for environmental education;

   b/ the cooperation of specialists and their exchange on the basis of cultural and other agreements;

   c/ extending the activities aimed at mutual cooperation and exchange of experience on the pre-graduate training and inservice training of teachers for environmental education;

2. to continuously secure the exchange of experience with new theoretical knowledge and verified experience in the field of the pre-graduate training and inservice education of teachers for environmental education on an international scale, in this connection to prepare the organization of a regional seminar in 1985 combined with an exhibition of selected teaching and learning media and teaching aids produced by individual countries of the European region;

3. to consider the organization of the courses for educational personnel orientated to the research and solution of the problems of the pre-graduate training and inservice training of teachers for environmental education;

4. to secure the bi-yearly publication of a newsletter on the

questions of the pre-graduate training and inservice training of teachers for environmental education;

5. to consider the processing of an inventory of modern audiovisual teaching and learning aids used in environmental education

C/ to the European Information Centre of Charles University for Further Education of Teachers

1. to process the Final Report from the Subregional Workshop and to hand it over to the Unesco Secretariat;
2. to publish concise Proceedings from the Subregional Workshop in English, Russian and Czech;
3. to continue gathering information on the pre-graduate and inservice training of teachers for environmental education and secure their dissemination.

P R O G R A M M E

of the Subregional Workshop on Training of Teachers for Environmental Education

/Prague - Hluboká, ČSSR, 13-17 October, 1980/

13 October, 1980, Monday

9,00 Registration of participants of the Workshop in the Charles University

9,30 Opening of the Workshop by Doc. JUDr.S.Petráček, CSc. Director of the European Information Centre of Charles University for Further Education of Teachers
Adoption of the Agenda
Election of Workshop bodies and staff

9,40 Addresses of official representatives

10,00 Workshop paper presented by Prof.Ing.V.Císař, CSc. Ist Deputy Minister of Education, Czech Socialist Republic

10,45 Coffee Break

11,00 Workshop paper presented by Abdul Ghafoor, Unesco Programme Officer, Division STE

11,40 Comments to selected problems of the Workshop presented by prof. Dr.B.Sýkora, DrSc., Head of the Czechoslovak Delegation

12,00-14,00 Break for lunch

14,00 - 18,00 Discussion to points 1 and 2 of programme /Exchange of information on state of training of teachers for environmental education in individual countries, problems and tasks; improvement of present state of training of teachers for environmental education through adoption of experience and measures from individual countries and through international cooperation/.

18,00 Visit to National Gallery

14 October, 1980, Tuesday

9,00 - 14,00 Continuation in the discussion to points 1 and 2 of the programme

14,00 - 15,30 Break for lunch

15,30 Departure for Hluboká

19,30 Cocktail at Hluboká castle

15 October, 1980, Wednesday

8,00 - 12,00 Discussion to point 3 of the programme in working groups /Preparation of model programmes and/or curricula for training of teachers for environmental education/

12,00 Lunch

13,00 - 21,00 Excursions to localities connected with environmental issues /the participants were asked to select one of the excursions according to their preferences/:

A: departure from Hluboká
visit to protected environmental area of Třeboň /MAB project/
dam on Malše river
Český Krumlov
České Budějovice
visit to Budvar brewery
supper at Budvar
return to Hluboká

B: departure from Hluboká
visit to Prachatice and to the neighbouring school natural reserve
Český Krumlov /from here on the two excursions were identical/

16 October, 1980, Thursday

8,00 - 10,30 Continuation in the discussion to point 3 of the Programme

10,30 - 12,30 Meeting with experts in EE methodology from South Bohemia

14,00 Departure for Prague

18,00 Return to Prague

17 October, 1980, Friday

9,00 - 10,30	Discussion to point 4 of the programme /Perspective tasks in training of teachers for environmental education/
11,00	Adoption of final documents of workshop Concluding addresses
13,00	Reception by the Rector of Charles University Prof. Dr.Z. Češka, CSc.
	Departures of workshop participants.

Documents used at the Workshop

I Documents Mailed before the Workshop

Basic Information	/TTEE/I/1/
Preliminary Agenda	/TTEE/I/2/
Information Note	/TTEE/II/1/
Questionnaire	/TTEE/II/2/
List of Documents	/TTEE/II/3/
Working Document	/TTEE/III/1/
Annotated Agenda	/TTEE/III/2/

II Documents Presented at the Beginning of the Workshop

List of Workshop Documents	/TTEE/IV/1/
Programme of the Workshop	/TTEE/IV/2/
South Bohemia - Short Itinerary	/TTEE/IV/3/
Basic Information on Prague	/TTEE/IV/4/
Preliminary List of Participants and Guests	/TTEE/IV/5/

III Documents Presented During the Workshop

Paper presented by First Deputy Minister of Education prof.Ing.Václav Císař, CSc.
Paper presented by Mr. A. Ghafoor, Unesco representative
Model of training of tuture teachers of general subjects for EE
Model of further education of teachers for EE

IV Reference Documents

Activisation of Youth and EE
Methodological Guidelines for Teachers of Primary Schools concerning EE /in Czech/. Issued by Research Pedagogical Institute, Prague, 1980.
Unesco referemce documents:

1. Final Report, Intergovernmental Conference on Environmental Education, Tbilisi, USSR, 14-26 October 1977
2. ENVED-4: Education and the Challenge of Environmental Problems

3. ENVED-5: International Programme in Environmental Education

4. ENVED-6: Needs and Priorities in EE: International Survey

5. ENVED-7: Regional Meetings of Experts on EE: a Synthetic Report

6. ENVED-8: Major Environmental Problems in Contemporary Society

7. Trends in EE, Unesco, 1977

8. Prospects, vol. VIII, No. 4: "Educating for a Better Environment"

9. Final Report, Regional Meeting of Experts in EE in Europe, Helsinki 1977

Supplement to the List of participants:

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/Prague - Hluboká, October 13-17, 1980/

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Subregional Workshop
on Training of Teachers
for Environmental Education
Prague, ČSSR, 13-17 October 1980

Final Report
Annex 2.4.1

Model of Pre-graduate Training of Teachers of General Education Subjects for Environmental Education of Institutions of Higher Education

A - Compulsory Formal Education

1st level

task: - to follow up on the previous level of education, to sum up acquired environmental information and to orient the student teacher's attention to environmental education, to stimulate the interest of students in this problem area

organization: integrated block of lectures on subject matter at the start of the study course

content: is common for all students of all specializations:

- fundamental ecological inter-relations in nature
- multiform linkages between man as a bio-social unit and the environment
- survey of principal current environmental problems
- comprehensive concept of the environmental problem area and the approach of states to the solution of environmental problems
- basic tasks of environmental education

methods: - verbal explanation linked with the use of audiovisual media, especially the film and excursions, meetings with specialists, etc.

IInd level

task: - to penetrate the entire structure of subject and methodological education with environmental education, to provide specialist and methodical knowledge and skills for environmental education such as are linked with the student's study field /specialization/

organization:

a/ implicit implementation of the comprehensive environmental care approach in all studied subjects,
b/ explicit incorporation of such parts of the subject matter on man's relations to his environment as are connected with the study field /specialization/:

- in selected subjects of common core educational sciences
- in the subject-based course of the study field
- in the didactics of the study field

content:
- is common for all core subjects of the educational sciences course e.g., pedagogy, psychology, philosophy, the biology of the child and hygiene/
- is differentiated with regard to orientation and quantity in the individual subjects of the chosen study field /specialization/, e.g., specific for teachers of biology, geography, the arts, mathematics, physics, chemistry, the main medium /mother tongue/, civics, etc.

methods:
- differentiated by fields of study and combined within each field of study
- methods of verbal explanation /tutorials/
- practice teaching, laboratory work, field work, excursions
- study of the literature, use of audiovisual aids
- discussions
- contact with practice

IIIrd level

task: to grasp and develop the student's practical pedagogical abilities for environmental education, to teach the student to apply, use and update the acquired knowledge and skills in this field in the classroom, to begin to form the habits required for consistent, purposeful, sensitive and unobtrusive educational work

organization: pedagogical practice

content: differentiated by field of study and by conditions of work, e.g. will differ between rural and urban schools

methods: independent work led by tutor:
- in processing preparations
- in actual practice teaching
- in analysis and evaluation

IVth level

task: to sum up and deepen information on the environmental problem area with regard to the study field and experience gained in educational practice, to emphasise the comprehensive approach to the problem area, the socio-political and philosophical aspects of the environment, to justify the importance of the aware solution of environmental problems as well as of the function of systematic environmental education, to derive the principles of this education and the responsibility and position of the teacher in forming the required ethics of man's attitude to the environment, to enhance initiative and activity vis à vis the environment through environmental education

organization: integrating seminar or lectures linked with seminar

content: differentiated by groups of study strains /with similar orientation, e.g., the sciences, the humanities, possibly with special regard to those field of study/ in which environmental education is based, e.g., biology, geography, civics

methods:
- verbal explanation /tutorials/ with the use of documentation and audiovisual aids /mainly films/
- independent study of the literature, gathering information and writing papers on the given problem
- discussions, excursions, field work
- independent processing of a selected problem

xxxxxxx

General conclusions:

The individual levels of environmental education follow up on one another or are conditional on each other. The concrete implementation of the individual levels should comply with the general character and structure of teacher training for different subjects. A knowledge of environmental education should be one of the requirements of the State diploma examination of higher education for all students at all institutions of higher education training for the teaching profession.

B - Elective Specialized Pre-Graduate Training of Teachers for Environmental Education

1. elective compulsory study

diploma or seminar thesis

task: to deepen the ability of the independent approach to the solution of environmental problems, stimulate initiative, activity, creativity

organization: individually led independent student's work

content: differentiated in accordance with the selected subject area

methods:
- independent study
- collection and processing of information
- acquiring experience from practical work
- discussion
- practical activities

2. elective optional study

task: to prepare the students for leading children's and youth hobby activities orientated to nature conservation and environmental care, for lecturing, propaganda and publicity work in this field, for active participation in environmental control, etc.

organization: selective study of elective subjects differentiated according to the strands of subjects, e.g., for the sciences and for the humanities;

content:
- detailed comprehensive information on the problems of the environment
- special information in relation to the study strand, e.g., to the sciences, the humanities, the educational studies
- current information on the environment
- the aims, content, method and forms of out-of-school environmental education
- the position of the leader of out-of-school hobby activities

methods:
- verbal explanation /tutorials/ with demonstrations of teaching aids

- independent study
- practice, field work, excursions
- publicly beneficial work

C - Voluntary Hobby Activities in the Field of Environmental Care

task: to grasp, stimulate and develop the interest, individual abilities, creativity and initiative of students vis à vis the environment through environmental education

organization: content and methods are differentiated by local conditions and by the orientation of hobby activities

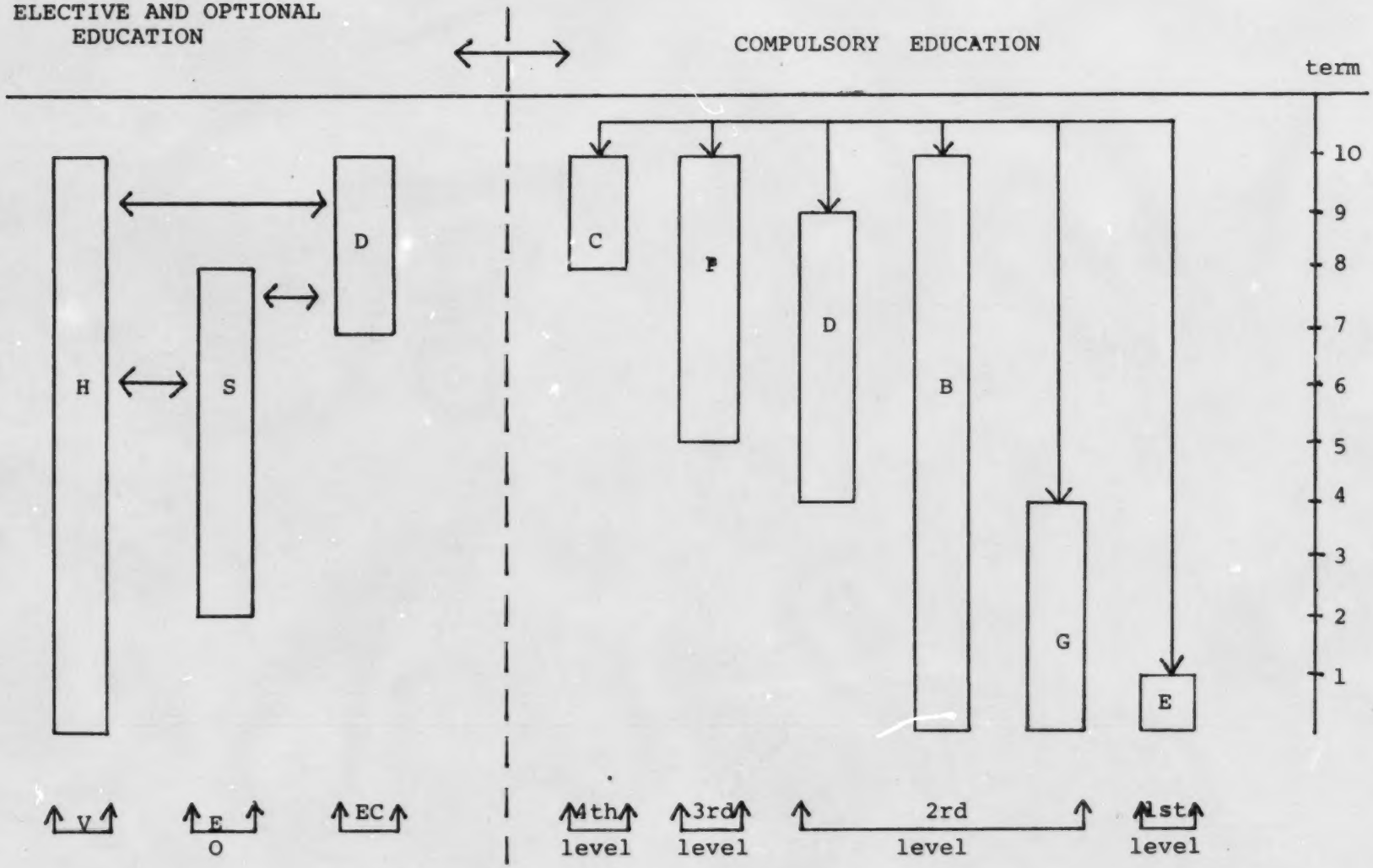
Model of Pre-graduate Training of Teachers of Technical Subjects for Environmental Education at Institutions of Higher Education

The basis of this model is the same as that for the pre-graduate training of teachers of general education subjects. Added to the postulates given in the said model the model of pre-graduate training of environmental education for teachers of technical subjects is the following task:

- environmental education must provide specific technical information on the relations between the study field and the environmental problem area and must include the specific requirement for the responsible professional attitude to the environment to be formed in the student. This attitude must not only be orientated to the subsequent removal of damage inflicted upon the environment but first and foremost to the preclusion of negative impacts on the environment by all human activities, i.e. by science and development, production, management and control.

These tasks are mainly related to the IInd, IIIrd and IVth levels of environmental education, i.e.

- the penetration of environmental education into all technical and methodical subjects
- the application of the aspect of environmental education in educational practice,
- the incorporation of the demand for professional responsibility towards the environment into the final complex subject unit related to the environmental problem area.


ELECTIVE AND OPTIONAL EDUCATION
COMPULSORY EDUCATION
term
10
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S
D
C
P
D
B
G
E
V
E
O
EC
4th level
3rd level
2nd level
1st level

Code

E ..... common ecological core

G ..... subject of general pedagogical core

B ..... subject of study field /specialization/, including specialized subjects related to the problems of the environment in such study fields which form the basis for environmental education, such as is ecology in the the subject of biology, landscape formation in the study of geography, etc.

D ..... didactics of the study field

P ..... practice teaching

C ..... comprehensive integrated course /seminar or lectures with seminar/ devoted to environmental problems at the close of the study course

H ..... hobby activities

S ..... selective seminars and lectures on environmental problems /specialization study course/

D ..... diploma and seminar theses

EC ..... elective compulsory study

EO ..... elective optional study

V ..... voluntary hobby activities

Subregional Workshop
on Training of Teachers
for Environmental Education
Prague, ČSSR, 13 - 17October 1980

Final Report
Annex 2.4.2

Model of Complementary and In-Service Training of Educational Personnel for Environmental Education

A. Model of inservice training as follow-up of pre-graduate teacher training for environmental education at institutions of higher education

1st level: induction

task: to form the habit of practically introducing environmental education into classroom work, to stimulate and develop the teachers' interest and initiative in this field

organization: within the framework of the one year induction period of beginning teachers by experienced teachers

content: differentiated according to the teaching load

methods: discussions, independent study, other forms of acquiring information on environmental problems, analyses of preparations for lessons and the evaluation of the practical application of environmental education in lessons, in in- and out-of-school educational activities

2nd level: basic post-graduate study course for serving teachers /updating and upgrading/

task: - to provide current information on environmental problems with regard to the needs of school practice:
a/ with regard to the comprehensive approach to the environmental problem area, mainly with regard to the socio-political aspects
b/ with regard to the given study field /specialization/
- to deepen the teachers' methodical knowledge related to environmental education using the practical experience of serving teachers

organization: lectures, forum seminars, possibly practical experience /differentiated by study field/ incorporated in a two-year post-graduate compulsory teacher training course

content: the comprehensive approach to the problems of the environment is practically identical for all specializations, that part of the content which is related to the respective study field is differentiated in quantity and character

methods: verbal explanation /tutorials/, discussions, excursions /for all specializations/, practice, field work /for some specializations, e.g., chemistry, biology, geography/
selective processing of theses on environmental problems

3rd level:

A - Selective Specialization Training of Teachers and Educational Personnel on Environmental Education

task: to provide teachers and other involved educators serving in school education with specialized and methodical knowledge of the theory and practice of environmental education in accordance with their interests and orientation and such as is applicable in school and out-of-school environmental education and in the participation of the teachers and of other educational personnel in the technical and societal solution of environmental problems;

organization: specialized 1 - 2 year selective post-graduate study courses for serving teachers, study cycles and separate lectures and seminars on environmental education

content: theoretical and practical skills and knowledge related to nature conservation, the environmental problem area in general and environmental education with regard to in- and out-of-school education as well as enlightment and publicity.

B - Continuous Updating of Information on the Problems of the Environment and on Environmental Education

task: - continuously secure the provision of current general and special information on environmental problems usable in school practice
- to spread the experience gained with environmental education in in- and out-of-school education
- to influence the interests, creativity, initiative and professional pedagogical responsibility of the teacher through environmental education
- to influence the societal involvement of teachers and

educational personnel in the solution of environmental problems /their cooperation with State Nature Conservation bodies, participation in the work of national committees in this field, etc./

organization: the publishing of specialized literature, articles in specialized and educational journals, methodical handbooks, through separate lectures, seminars, conferences, competitions, the radio, television, film, etc.

content: - focused on general problems of the environment
- focused on selected problems of the environment with regard to the specialized and regional problems of the environment
- focused on problems of environmental education using different means in different conditions

methods: verbal
audiovisual
practical /various collective actions or instructions for independent activities/

C - Pedagogical Creativity in Environmental Education

task: - to develop the creative approach of teachers and educational personnel to environmental education and the awareness of their societal responsibility in this respect
- to use the experience and initiative of teachers and other educational personnel as related to environmental education, possibly their views on environmental care

organization: - educational readings
- specialized teachers' conference
- publishing activity of teachers and other educational personnel in this field

content: differentiated according to the subject matter selected by the teacher or other educators

methods: independent study of problem area
consultations with specialists in different areas

written elaboration of selected subject matter
transmission of experience /public appearance,
written reports/

B - Model of complementary and inservice education of teachers with no pre-graduate training for environmental education, organized at institutions of higher education

1st level: basic specialized and methodical information on environmental education

task: - to acquaint the teachers and other educational personnel with the concept of environmental education, the position of the teacher in this field, the inter-relations between the individual subjects taught in school and environmental education
- to provide the teacher and other educators with a comprehensive survey of environmental problems and environmental care
- to provide the teacher with specialized information on the relation between his subject and the problems of the environment
- to provide the teacher and other educators with general methodical and didactic information necessary for implementing environmental education in their practical work
- to stimulate the interest of teachers and other educators in environmental education; to arouse their awareness of societal responsibility in this field while sensitively respecting the educational experience of the teacher and educator

organization: - publishing specialized methodical publications on the concept, significance and implementation of environmental education
- organizing specialist seminars, lectures, study cycles, lectures on the problems of environmental education

content: - comprehensive compact information on the problem of the environment and on environmental education corresponding to the 1st and IVth levels of pregraduate training of student teachers at institutions of higher education

- specialized comprehensive information on environmental education in the individual subjects, corresponding to the IInd and IVth levels of pre-graduate training of student teachers

methods: - independent study of basic specialized and methodical literature
- verbal explenation /tutorials/, practice, excursions
- transmission of experience through subject councils, etc.

IInd level - IIIrd level /A, B, C/ are based on the same concept as in model A /follow up of pre-graduate teacher training for environmental education/.

CODE:

U ..... induction
D ..... complementary /basic specialized and methodical information/
Z PGS .. basic post-graduate study course
A ..... continuous updating - diverse forms
S PGS .. specialization post-graduate study course
P ..... pedagogical creativity

BASIC MODEL OF COMPLEMENTARY AND IN-SERVICE TRAINING OF TEACHERS AND EDUCATIONAL PERSONNEL FOR ENVIRONMENTAL EDUCATION